AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application: **(AS ON AMENDED SHEET(S) ANNEXED TO IPRP)**

15. (new) A method in a radio node, the first radio node, of transmitting beacon messages to at least a second radio node in an ad hoc or multihop network, wherein the ad hoc or multihop network comprises a plurality of further radio nodes, wherein the rate of which the radio node transmits its beacons is adaptive, wherein the method in the first radio node comprises the steps of

a) -*defining* a subset, NB_v, of neighbours;

b) -*recording* a plurality of beacon message from the radio nodes which are part of the subset, and determining the relative speed as compared to the first radio node of the radio nodes in the subset from the recorded respective plurality of beacon messages;

c) -*estimating* the network dynamics, based on the relative speed of the radio nodes in the subset;

d) -*determining* beacon rate, based on the estimate of the network dynamics.

16. (new) Beacon transmitting method according to claim 15, wherein the estimate of the network dynamics is based on analysis of the relative speed as compared to the first radio node of a plurality of neighbouring radio nodes and wherein the neighbouring radio node that exhibit the highest relative speed compared to the

first radio node, is given the greatest impact on the estimate of the network dynamics.

17. (new) Beacon transmitting method according to claim 16, wherein the method comprises a step, to be performed prior to the determining step d), of:
-comparing estimates of network dynamics, wherein if the current estimate of network dynamics differ with at least a predetermined amount from a previous estimate of the network dynamics, the method proceeds to the determining step d), and otherwise the first the method continues to monitor the neighbouring radio nodes in the subset (steps a-c).

18. (new) Beacon transmitting method according to claim 17, wherein the step of estimating the network dynamics, the estimate of the network dynamics is further at least partly based on the path loss history of the beacons received from the radio nodes in the subset.

19. (new) Beacon transmitting method according to of claim 18, further comprising a step of *storing* beacon parameters of the respective beacon messages.

20. (new) Beacon transmitting method according to claim 19, wherein the beacon parameters comprise at least one parameter relating to received signal strength

of the beacon message, and at least one parameter relating to time of arrival of the beacon messages.

21. (new) Beacon transmitting method according to claim 20, wherein, the beacon parameters comprise parameters that have been included by the sending radio node in the beacon message.

22. (new) Beacon transmitting method according to claim 32, wherein at least one parameter originally included by the sending radio node comprises a parameters relating to the position of the sending node.

23. (new) Beacon transmitting method according to claim 15, wherein the beacon transmit power at which the first radio node radio transmits its beacons is based on the estimate of the network dynamics.

24. (new) Beacon transmitting method according to claim 23, wherein the estimate of the network dynamics is based on analysis of the relative speed as compared to the first radio node of a plurality of neighbouring radio nodes and wherein the neighbouring radio node that exhibit the highest relative speed compared to the first radio node, is given the greatest impact on the estimate of the network dynamics.

25. (new) Beacon transmitting method according to claim 24, wherein the method comprises a step, to be performed prior to the determining step d), of:
-comparing estimates of network dynamics, wherein if the current estimate of network dynamics differ with at least a predetermined amount from a previous estimate of the network dynamics, the method proceeds to the determining step d), and otherwise the first the method continues to monitor the neighbouring radio nodes in the subset (steps a-c).

26. (new) Beacon transmitting method according to claim 25, wherein the step of estimating the network dynamics, the estimate of the network dynamics is further at least partly based on the path loss history of the beacons received from the radio nodes in the subset.

27. (new) Beacon transmitting method according to of claim 26, further comprising a step of *storing* beacon parameters of the respective beacon messages.

28. (new) Beacon transmitting method according to claim 27, wherein the beacon parameters comprise at least one parameter relating to received signal strength of the beacon message, and at least one parameter relating to time of arrival of the beacon messages.

29. (new) Beacon transmitting method according to claims 15, wherein the step of estimating the network dynamics, the estimate of the network dynamics is at least partly based on the path loss history of the beacons received from the radio nodes in the subset.

30. (new) Beacon transmitting method according to claim 29, further comprising a step of *storing* beacon parameters of the respective beacon messages.

31. (new) Beacon transmitting method according to claim 30, wherein the beacon parameters comprise at least one parameter relating to received signal strength of the beacon message, and at least one parameter relating to time of arrival of the beacon messages.

32. (new) Beacon transmitting method according to claim 31, wherein the beacon parameters comprise parameters that have been included by the sending radio node in the beacon message.

33. (new) Beacon transmitting method according to claim 32, wherein at least one parameter originally included by the sending radio node comprises a parameters relating to the position of the sending node.

34. (new) A radio node adapted for communication in an ad hoc or multihop network, the radio node comprising and a transmitting part adapted to transmit beacon messages and a receiving part adapted to receive beacon messages, the radio node comprising:

-beacon recording means for recording a plurality of beacon messages from a plurality of other radio nodes, and determining beacon parameters, the received beacon parameters comprising at least the respective received signal power and time of arrival of the received beacon messages;

-storing means for storing the received beacon parameters;

-statistical processing means for performing a statistical analysis on the stored plurality of beacon parameters, whereby producing an estimate of the network dynamics based on relative speed as compared to the radio node of each of the other radio nodes;

-beacon adjusting means for adjusting the transmission rate and/or power of transmitted beacon messages based on the estimate of the network dynamics.

35. (new) Radio node according to claim 34, wherein the statistical processing means estimates the network dynamics at least partly based on analysis of the relative speed of a plurality of neighbouring radio nodes and wherein the neighbouring radio node that exhibit the highest relative speed compared to the radio node, is given the greatest impact on the estimate of the network dynamics.

36. (new) Radio node according to claim 35, wherein the beacon receiving means is adapted to define a subset, NB_v, of neighbouring radio nodes, and the storing means is adapted to record and store received beacon parameters from at least another radio node which is part of the subset.

37. (new) A system of a plurality of radio nodes adapted to communicate in an ad hoc or multihop network, wherein the radio nodes transmits beacon messages (HELLO messages) between each other, at least two of the radio nodes of the system comprising:

-beacon recording means for recording a plurality of beacon messages from a plurality of other radio nodes, and determining beacon parameters, the received beacon parameters comprising at least the respective received signal power and time of arrival of the received beacon messages;

-storing means for storing the received beacon parameters;

-statistical processing means for performing a statistical analysis on the stored plurality of beacon parameters, whereby producing an estimate of the network dynamics based on relative speed as compared to the radio node of each of the other radio nodes;

-beacon adjusting means for adjusting the transmission rate and/or power of transmitted beacon messages based on the estimate of the network dynamics.

38. (new) The system of radio nodes according to claim 37, wherein the statistical processing means estimate the network dynamics at least partly based on analysis of the relative speed of a plurality of neighbouring radio nodes and wherein the neighbouring radio node that exhibit the highest relative speed compared to the radio node, is given the greatest impact on the estimate of the network dynamics.

39. (new) The system of radio nodes according to claim 37, wherein the beacon receiving means are adapted to define a subset, NB_v, of neighbouring radio nodes, and the storing means are adapted to record and store received beacon parameters from at least another radio node which is part of the subset.